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ABSTRACT

A literature search for information concerning standards for library and information center personnel resulted in this annotated bibliography. The twofold purpose of the study was: (1) to identify the staffing and organization problems of the library and information science professions and their methods of solving them and (2) to record pertinent material with annotations and abstracts suitable for use in development staffing guides for Department of the Army libraries and information facilities. Most of the titles listed have been published since 1963. A few earlier titles are included as background reading or for their historical interest. The bibliography is arranged alphabetically by author. The few publications not available for examination are marked. They are included because of their apparent importance as indicated by their titles. An index, arranged by subject content as well as by types of libraries and information facilities, is included. (Author/NH)

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A BIBLIOGRAPHY ON STAFFING CRITERIA FOR LIBRARIES, INFORMATION CENTERS, AND INFORMATION ANALYSIS CENTERS

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A BIBLIOGRAPHY ON STAFFING CRITERIA FOR LIBRARIES, INFORMATION CENTERS, AND INFORMATION ANALYSIS CENTERS

This bibliography of 159 references is the result of a search of the literature on standards and related subjects for a twofold purpose: (1) to identify the staffing and organization problems of the library and information science professions and their methods of solving them; and (2) to record pertinent material with annotations and abstracts suitable for use in development staffing guides for Department of the Army libraries and information facilities.

The majority of titles listed have been published since 1963. In that year the President's Science Advisory Committee published a report, "Science, Government, and Information: The Responsibilities of the Technical Community and the Government in the Transfer of Information" (frequently referred to as the Weinberg Report) which pointed Government and non-Government information activities in a new direction. In the same year the Brookings Institution published a report of a survey of Federal libraries by Luther H. Evans, former Librarian of Congress. This was the first survey of Federal libraries since 1876, and contained important recommendations many of which have since been followed. Therefore, earlier titles which are listed have been included as background reading or because they are of historical interest.

Various facets have been explored which are pertinent to staffing. Material is included which defines and identifies: the Department of Army libraries, information centers, and information analysis centers; mission, functions, and operations of these facilities; the classification of positions in these facil-

ities including duties and responsibilities; and budget allocations--all as they pertain to the staffing of the facilities. Most particularly emphasis has been placed on that material which contributes characteristics for staffing criteria on which yardsticks have been or may be based.

The publications included were identified by searching Library Literature, Dissertation Abstracts, U.S. Government Research and Development Reports, the bibliographies of various Reports and Studies, catalogs of the libraries of the Civil Service Commission, Department of the Army, Department of Health, Education and Welfare, Department of the Interior and the Standards file in the Washington office of the American Library Association. Helpful advice was also obtained through consultation with librarians who have been particularly interested in staffing criteria.

Arrangement of the bibliography is alphabetical, by author. Each entry is numbered in sequence and includes a descriptive annotation or an abstract from the contents of the article, book or report cited in order to call attention to a significant portion of it. A few publications were not available for examination and are so marked. They are included, nonetheless, because of their apparent importance as indicated by their titles.

An index, geared as a guide for those using the bibliography, is arranged by subject content as well as by types of libraries and information facilities.

BIBLIOGRAPHY ON STAFFING CRITERIA
FOR LIBRARIES, INFORMATION CENTERS, AND INFORMATION ANALYSIS CENTERS

1. AEC AND DOD INFORMATION ANALYSIS CENTERS. Special Libraries 57:21-36. January 1966.
   The location, personnel, affiliation, mission, services, user qualifications, and publications of 21 analysis centers supported by the Department of Defense and 14 supported by the Atomic Energy Commission are described. Characteristics of analysis centers which provide differentiation from documentation centers are indicated, and directories of other information centers are cited.

2. Aines, Andrew A. SCIENCE, TECHNOLOGY, AND THE LIBRARY. Special Libraries 57:15-20. January 1966.
   An essay on trends in the information field including the future roles of special libraries and information centers by the then Executive Secretary of the Committee on Scientific and Technical Information of the Federal Council for Science and Technology.

3. American Association of State Libraries. Standards Revision Committee. STANDARDS FOR LIBRARY FUNCTIONS AT THE STATE LEVEL. Chicago, American Library Association, 1970. Rev. ed., 56 p.
   An extensive revision of the 1963 edition offering guidelines for state library capability for developing personnel, programs and processes for statewide service and eventually a national system. This publication will be useful to all libraries and public agencies interested in the concept of total library service and network planning.

4. American Council of Learned Societies. ON RESEARCH LIBRARIES: STATEMENT AND RECOMMENDATIONS OF THE COMMITTEE ON RESEARCH. Cambridge, Massachusetts Institute of Technology Press, 1969. 104 p.
   This is the formal report of the Committee on Research Libraries appointed and sponsored by the American Council of Learned Societies. The ACLS Committee was created in response to a request from the National Advisory Commission on Libraries for a study of research libraries and recommendations for their future development. Of special interest to this study are the sections, "Research Libraries and the New Technology" and "Research Libraries and the Federal Government."

5. American Library Association. Library Administration Division. PERSONNEL ORGANIZATION AND PROCEDURE: A MANUAL SUGGESTED FOR USE IN PUBLIC LIBRARIES. Chicago, American Library Association, 1968. 2d ed., 60 p.
   Working manual for public libraries covering such topics as organization and administration, classification of positions, appointments, staff development, and staff relationship.

6. American Library Association. Library Administration Division. SUB-PROFESSIONAL OR TECHNICAL ASSISTANT; A STATEMENT OF DEFINITION. ALA Bulletin 62:387-397. April 1968.
Also appears in Special Libraries 60:179-184. March 1969.
This report, approved by the executive boards of the Library Administration Division and the Library Education Division, represents the official policy of both divisions. "The report proposes some basic definitions of the subprofessional or 'technician' class of library employee and suggests sample classification specifications including statements of typical duties. It is not meant to serve as a definitive guide to position classification."

7. American Library Association. Library Administration Division. Personnel Publications Committee. PERSONNEL ORGANIZATION AND PROCEDURE; A MANUAL SUGGESTED FOR USE IN COLLEGE AND UNIVERSITY LIBRARIES. Chicago, American Library Association, 1968. 2d ed., 63 p.
Working manual on all phases of personnel administration, for use in college and university libraries. Bibliography included.

8. American Library Association. Library Education Division. CRITERIA FOR PROGRAMS TO PREPARE LIBRARY TECHNICAL ASSISTANTS. Special Libraries 60:253-258. April 1969.
Also appears in Summary. Library Journal 94:1830. May 1, 1969.
"This document was developed by the LED Interdivisional Committee on Training Programs for Supportive Library Staff and is intended to serve as a guide for persons planning programs for Library Technical Assistants (LTA) and for the evaluation of existing programs for Library Technical Assistants. The programs are conceived as introductory preparation of personnel to fill beginning positions in the range of Library Technical Assistant positions in a variety of situations." Supersedes "Draft of Guidelines for Training Programs for Library Technical Assistants" published in LED Newsletter, May 1968.

9. American Library Association. Public Library Association. COSTS OF PUBLIC LIBRARY SERVICE: 1969. Just Between Ourselves (Public Library Association). October 1969.
The costs cited here are unit costs or budget building blocks designed to provide minimum service to meet ALA's public library standards. An annual revision is planned.

10. American Library Association. Public Library Association. MINIMUM STANDARDS FOR PUBLIC LIBRARY SYSTEMS, 1966. Chicago, American Library Association, 1967. 80 p.
Officially adopted standards for all public library service, including staffing of libraries. A listing of "Statistical Standards," approved June 1967 by the PLA, is also included.

11. American Library Association. Public Library Association. Armed Forces Librarians Section. Military Community-Library Study Committee. STUDYING THE MILITARY COMMUNITY. Chicago, American Library Association, 1962. 50 p.

A guide by which to survey the library needs of a military community. Library objectives, analysis of library services, and questionnaires for users are included.

12. American Library Association. Special Committee on National Manpower Programs. LIBRARY MANPOWER PROBLEMS, A REPORT. ALA Bulletin 62:995-1000. September 1968.

Presented at a Council meeting during the annual ALA conference in Kansas City. A report of the manpower status quo and recommendations for the future, including establishment of a continuing manpower committee to report periodically.

13. APPRAISALS OF "OBJECTIVES AND STANDARDS FOR SPECIAL LIBRARIES." Special Libraries 56:197-201. March 1965.

In response to a request a library school dean and professor, an administrator in industry, a library specialist in the U.S. Office of Education, and several practicing special librarians give their opinions of the 1964 standards for special libraries. See also Item 113.

14. Asheim, Lester E. EDUCATION AND MANPOWER FOR LIBRARIANSHIP; FIRST STEPS TOWARD A STATEMENT OF POLICY, WITH COMMENTARY. ALA Bulletin 62:1096-1118. October 1968.
Comment by R. Blasingame, Jr. (letter). ALA Bulletin 63:705-707. June 1969.

The Director of the American Library Association Office for Library Education presents a policy statement, the purpose of which is the improvement of library service through the improvement of library education. The proposals included in the statement introduce a middle service at the bachelor's level, the training of technical assistants, and the reassignment of duties from the professional staff to the nonprofessional--all designed to increase the quality of professional performance.

15. Association of College and Research Libraries. GUIDELINES FOR LIBRARY SERVICES TO EXTENSION STUDENTS. ALA Bulletin 61:50-53. January 1967. Also published in Chicago, by American Library Association, 1967. 4 p.

Covers staff, services, and availability of resources for extension work.

16. Association of College and Research Libraries. Audio-Visual Committee. GUIDELINES FOR AUDIO-VISUAL SERVICES IN ACADEMIC LIBRARIES. Chicago, American Library Association, 1968. 24 p.

This guide includes a section on number and type of staff required for an audio-visual department.

17. Association of College and Research Libraries. Committee on Standards. STANDARDS FOR COLLEGE LIBRARIES. College and Research Libraries 20:274-280. July 1959.
Also published in Chicago, by American Library Association, 1959. 8 p.
These standards prepared for the ACRL Committee on Standards, are designed for colleges with four-year undergraduate instruction which may or may not have graduate programs leading to a master's degree. The paragraph on staff suggests a formula for arriving at the number of staff, and cites other staffing formulas in use by two different educational institutions.

18. Association of College and Research Libraries. Committee on Standards. STANDARDS FOR JUNIOR COLLEGE LIBRARIES. College and Research Libraries 21:200-205. May 1960.
Also published in Chicago, by American Library Association, 1960. 8 p.
Standards for the two-year college. A paragraph on staffing criteria suggests a formula for the proper number of staff.

19. Association of Hospital and Institution Libraries. Hospital Library Standards Committee. STANDARDS FOR LIBRARY SERVICES IN HEALTH CARE INSTITUTIONS. Chicago, American Library Association, 1970.
Not examined.

20. Atwood, Ruth and Livingston, Frances. AUTOMATION ON TEN DOLLARS A DAY. Special Libraries 60:215-218. April 1969.
In the operations described, clerical functions essential to the daily operations of the library are carried out by the library staff in the library. Analytical functions are performed on a computer outside the library.

21. Auerbach Corporation. A STUDY OF MANPOWER REQUIREMENTS FOR TECHNICAL INFORMATION SUPPORT PERSONNEL. Washington, U.S. Department of Labor, 1964. 23 p. (AD 607 893)
This study done for the Department of Labor examines the role of the library, among other facilities, in giving technical support to scientists and engineers in the communications industry, and the personnel required to give this assistance.

22. Battelle Memorial Institute. SURVEY AND ANALYSIS OF SPECIALIZED SCIENCE INFORMATION SERVICES IN THE UNITED STATES; FINAL REPORT. By L. Panning and others. Washington, U.S. Atomic Energy Commission, 1962. 100 p.
Compiles, isolates, and interprets data on many areas including types of services, user groups, personnel and staffing, and methods of communication and support. Although dated, this work is valuable for its description of the characteristics of library service and information center service.

23. Becker, Joseph. CURRENT TRENDS IN LIBRARY AUTOMATION. In Proceedings of the 1966 Clinic on Library Application of Data Processing. Urbana, University of Illinois, Graduate School of Library Science, 1966. p. 1-6.

The paper covers the history of data processing equipment from the late 1800's to the present. Implications for the future are discussed.

24. Becker, Joseph. SYSTEMS ANALYSIS, PRELUDE TO LIBRARY DATA PROCESSING. ALA Bulletin 59:293-296. April 1965.

Describes how systems analysis works in libraries. Cites experience in the University Library at Penn State and the benefits of the system installed. Personnel requirements are not reduced by the introduction of data processing; on the contrary more staff may be needed.

25. Belzer, Jack, ed. INFORMATION SCIENCE EDUCATION: CURRICULUM DEVELOPMENT AND EVALUATION. American Documentation 20:325-376. October 1969.

Conference proceedings of the Curriculum Committee of the Special Interest Group on Education in Information Science of the American Society for Information Science, held September 25-28, 1968, at the University of Pittsburgh. The purpose of this meeting was to develop standards for curricula in information science. Articles include the relationship of information science to librarianship. Papers generated by the conference are included.

26. Bloomfield, Masse. COST CHARACTERISTICS OF LIBRARY SERVICE. Special Libraries 58:686-691. December 1967.

In a survey during 1966 of nine aerospace libraries data was obtained on four characteristics of their operation: circulation, library staff, patrons served, and library space. The total operating cost of each library was estimated by using a fixed dollar amount spent per library staff member. Tables indicate the correlation between number of library staff and other factors.

27. Bloomfield, Masse. ROLE OF ONE TECHNICAL LIBRARY IN SUPPORT OF AN INFORMATION CENTER. Special Libraries 57:39-44. January 1966. Also published in Culver City, Calif., by Hughes Aircraft Company, 1964. 15 p. (TM-804) (AD 609 825)

Describes interaction of the library and the information center at the Hughes Aircraft Company, Culver City, California. Areas of responsibility are delineated. Characteristics of both information centers and technical libraries are discussed, in general, and benefits derived from interaction of the two types are described, with indication of enrichment of the library staff as a resulting benefit.

28. Bolles, Shirley W. USE OF FLOW CHARTS IN THE ANALYSIS OF LIBRARY OPERATIONS. Special Libraries 58:95-98. February 1967.

This paper is concerned with the evaluation and analysis of library operations. Flow charts together with work simplification techniques can improve many library systems.

29. Booz-Allen Applied Research, Inc. STUDY OF MECHANIZATION IN DOD LIBRARIES AND INFORMATION CENTERS. Bethesda, Md., 1966. various paging. (AD 640 100)
Factors studied for evaluating this mechanization include manpower needs, operator skill levels, number of requests, number of users, recall and relevance of search output, and many others.

30. BOWKER ANNUAL OF LIBRARY AND BOOK TRADE INFORMATION. New York, R.R. Bowker, 1970. 582 p.
Contains yearly statistics on all aspects of libraries and librarianship including library education and manpower, and the current state of library standards (pages 61-76). A special section on international statistics appears for the first time in this, the 15th edition.

31. Brown, Helen M. PERSONNEL AND MANPOWER NEEDS OF THE FUTURE. Library Trends 18:75-84. July 1969.
Manpower picture as of summer 1969, with indication of prevailing trends for academic librarians which eventually will produce a change in the organization and staffing of college libraries.

32. Byrn, James H. AUTOMATION IN UNIVERSITY LIBRARIES: THE STATE OF THE ART. Library Resources and Technical Services 13:520-530. Fall 1969.
A survey of automation in university libraries, citing and tabulating actual use in specific operations. Considers actual accomplishments to be minimal. Lack of skilled personnel, lack of funds, and lack of dependable facilities are major reasons for lack of progress.

33. Canadian Library Association. PUBLIC LIBRARY STANDARDS. Ottawa, The Association, 1967. 23 p.
Standards for Canadian public libraries, including among others, those for organization, functions, staff, and duties.

34. Castagna, E. INTAMEL, INTERNATIONAL MEETING, GOTHENBURG, 1969: (2) STAFFING OF LARGE PUBLIC LIBRARIES IN THE UNITED STATES. International Library Review 1:465-474. October 1969.
Article covers staffing standards for public libraries, variations in staffing, division of duties, and the effect of staffing of public attitudes toward library service and the nature of urban populations. Contains material some of which is pertinent to all libraries as well as public libraries.

35. Chubarian, O.S. PLACE OF LIBRARIES IN THE PROVISION OF SCIENTIFIC AND TECHNICAL INFORMATION. Library World 69:280-282. May 1968.

The Soviet Union attempts to meet the problem of information explosion. The author of the article is the Deputy Director of the Lenin State Library of the U.S.S.R.

36. Cohan, Leonard and Craven, Kenneth. SCIENCE INFORMATION PERSONNEL. New York, Modern Language Association, 1961. 74 p.
Educational requirements, duties, and typical job descriptions of both librarians and information personnel are considered.

37. Crosland, Dorothy M. GEORGIA TECH AND THE NSF STUDY GRANT FOR TRAINING PERSONNEL FOR SCIENTIFIC AND TECHNICAL LIBRARIES. Special Libraries 53:590-596. December 1962.
Report of two conferences held at the Georgia Institute of Technology, one in March 1961 and one in April 1962 to study the needs of scientific and technical libraries. As a result the first courses of a professional program were set up at Georgia Tech for training the technical literature analyst. Includes definitions and curriculum of the proposed program.

38. Crum, Norman J. RESOURCE PLANNING AND EVALUATION IN COMPANY LIBRARIES. Sci-Tech News 24:9-14. Spring 1970.
"Since approximately two-thirds of the company library budget is spent for staff, selecting, training, motivating, and deploying employees in an optimum manner have major resource implications..."

39. Darby, Ralph L. INFORMATION ANALYSIS CENTERS AS A SOURCE FOR INFORMATION AND DATA. Special Libraries 59:91-97. February 1968.
Detailed information on information analysis centers, their establishment and functions. Includes a list of directories of specialized information centers and services compiled by the Battelle Memorial Institute.

40. Darling, Louise. INFORMATION CENTER FUNCTION. In Oppenheimer, Gerald, J., ed. Regional Medical Library Service in the Pacific Northwest. Seattle, University of Washington, 1967. p. 27-63.
Describes the operation of the Brain Information Service at UCLA and its use of MEDLARS searches. Includes estimates of work which can be handled per staff member in various activities and number of staff required.

41. Davison, G.H. DESIRABLE RATIO OF PROFESSIONAL AND NON-PROFESSIONAL LIBRARY STAFF. Aslib Proceedings 14:361-379. November 1962.
Although out-of-date, this article is of interest because it cites various authorities on categories of staff numbers, status, qualifications, duties, etc. It also considers the differences in duties and responsibilities between librarians and information officers.

42. Dougherty, Richard M. MANPOWER UTILIZATION IN TECHNICAL SERVICES. Library Resources and Technical Services 12:77-82. Winter 1968.

The author deals with results of a survey conducted by the American Library Association's Resources and Technical Services Division in 1965 concerning manpower utilization. No statistics are given but trends are cited, in particular, the role of automation and its effect on the manpower situation. The answer to the manpower problem is indicated to lie in proper job analysis and allocation.

43. Dougherty, Richard M. and Heinritz, F.J. SCIENTIFIC MANAGEMENT OF LIBRARY OPERATIONS. Metuchen, N.J., Scarecrow Press, 1966. 258 p.

"This book is intended both as a textbook for library school students and a handbook for practicing librarians. It will acquaint the former with the basic tools of the management analyst and will aid the latter in improving their present systems. The major analysis techniques are described in step-by-step detail, with a wealth of illustrations and library examples."

44. Downs, Robert B. and Delzell, Robert F. PROFESSIONAL DUTIES IN UNIVERSITY LIBRARIES. College and Research Libraries 26:30-39. January 1965.

This report, prepared for the Association of College and Research Libraries, summarizes library position descriptions from the Universities of California, Illinois and Michigan--three places where there has been concentration on this phase of personnel administration. References are made to other standards, namely those of the U.S. Civil Service Commission (See Item 127).

45. Downs, Robert B. and Heussman, John W. STANDARDS FOR UNIVERSITY LIBRARIES. College and Research Libraries 3:28-35. January 1970.

Tables prepared on behalf of the Association of Research Libraries from data collected from 50 university and research libraries for the series "Criteria for Excellence in University Libraries." These tables may assist the librarian in making determinations such as the proper distribution of his budget, the ratio of professional to nonprofessional staff, the size of the book collection, and hours of service by comparing his own situation with those of comparable institutions.

46. Drennan, Henry T. and Reed, Sarah R. LIBRARY MANPOWER. ALA Bulletin 61:957-965. September 1967.

This paper prepared for presentation at the American Library Association conference in San Francisco, June 1967, updates the manpower portion of "National Inventory of Library Needs" (1965). (See Item 143). It considers shortage of professional librarians and forecasts future manpower needs. Statistics are given for staffing, vacancies, and professional characteristics in academic, public, and school libraries in the United States over varying periods.

47. Edwards, A.P.J. NATIONAL SURVEY OF STAFF EMPLOYED ON SCIENTIFIC AND TECHNICAL INFORMATION WORK. Journal of Documentation 22:210-244. September 1966.
Not examined.

48. Evans, Luther H. and others. FEDERAL DEPARTMENTAL LIBRARIES; A SUMMARY REPORT OF A SURVEY AND A CONFERENCE; edited by Harold Orlans. Washington, Brookings Institution, 1963. 150 p.
This is a report of a survey of Federal libraries by the former Librarian of Congress and sponsored by the Brookings Institution under a grant from the Council on Library Resources. The first survey of Federal libraries since 1876, it draws some far-reaching conclusions on Federal library organization and problems. There is a chapter on personnel which gives brief statistics. "Summary of Recommendations" by the editor, Harold Orlans, appears on pages 106-108.

49. Fazar, Willard. PROGRAM PLANNING AND BUDGETING THEORY: IMPROVED LIBRARY EFFECTIVENESS BY USE OF THE PLANNING-PROGRAMMING-BUDGETING SYSTEM. Special Libraries 60:423-433. September 1969.
A highly technical article on the Planning-Programming-Budgeting System as used by the Department of Defense and the way this system can be used in libraries. "The paper includes illustrative examples of results needed for decision-making by managers, and basic guiding principles for PPBS application."

50. FEDERAL INFO CENTERS REPORTED THRIVING. Library Journal 92:3950. November 1, 1967.
Report at the end of one year on the first Federal Information Center established in Atlanta. This pilot operation which may serve as the model for others handles 500 requests monthly. The purpose of the Center is to refer members of the public to the appropriate federal service, office, or information.

51. Feinler, E.J. and others. ATTITUDES OF SCIENTISTS TOWARD A SPECIALIZED INFORMATION CENTER. American Documentation 16:329-333. October 1965.
A study of information needs of more than 300 atomic and molecular physicists in the United States, and their use of existing information sources. Preferences for various types of information services are given.

52. Fink, C. Dennis, Leedy, Herbert B. and Hayes, John F. PROJECTED MANPOWER NEEDS AND PROJECTED TRAINING REQUIREMENTS FOR OPERATORS AND USERS OF FUTURE STINFO SYSTEMS. Alexandria, Virginia, Human Resources Research Office, The George Washington University, 1966. 40 p. (AD 635 132)
Various opinions exist as to the skills and knowledge required for efficient operation of technical libraries. Automatic data processing operators are essential and in demand.

53. Gull, C.D. PERSONNEL REQUIREMENTS FOR AUTOMATION IN LIBRARIES. In Harvey, J.F., ed. Data Processing in Public and University Libraries. New York, Spartan Books, 1966. p. 125-141.
Covers personnel qualifications, personnel sources, training methods, staff organizations, organization charts. Includes bibliography and list of references.

54. Hamill, Harold L. NUMBERS GAME: PERFORMANCE BUDGETING. Library Journal 90:3563-3567. September 15, 1965.
A concise explanation of performance budgeting, citing its limitations when applied to libraries.

55. Hamilton, Robert E. THE ILLINOIS STATE LIBRARY "ON-LINE" CIRCULATION CONTROL SYSTEM. In Proceedings of the 1968 Clinic on Library Applications of Data Processing. Urbana, University of Illinois, Graduate School of Library Science, 1969. p. 11-28.
A description of this system includes the number and qualifications of persons added to the library staff to prepare for the introduction of the computer system.

56. Hammer, D.P. CASTING FOR AUTOMATION; NEW ROLES FOR ADMINISTRATOR, LIBRARIAN, SYSTEMS ANALYST, PROGRAMMER. Library Journal 94:4492-4495. December 15, 1969.
"The successful development of a library's automation program is a cooperative venture between the library staff and computer-systems personnel...The key to the success of the project, however, is the active participation of the library's top administrative officer. His authority, prestige, and influence are essential factors in the development of effective channels with other institutional administrators and with funding agencies."

57. Havens, Shirley. DAY WITH THE ARMY. Library Journal 91:894-900. February 15, 1966.
Gives a bird's eye view of the Army's libraries and their organizational set-up, including the Army Library in the Pentagon, Special Services or general libraries, and the Army's service school libraries.

58. Heliger, Edward. STAFFING A COMPUTER BASED LIBRARY. Library Journal 89:2738-2739. July 1964.
Staffing pattern for the first "computerized" university library which became operative when the new Florida Atlantic University at Boca Raton, Florida opened its doors on September 1, 1964. Projections are made for the following years as the enrollment increases. Though short, this articles discusses numbers of staff, duties, and training, and includes an organization chart.

59. Herner, Saul and Heatwole, M.K. PLANNING OF LIBRARIES FOR MILITARY RESEARCH ESTABLISHMENTS. Science 114:57-59. July 20, 1951.
Describes a model unified library serving a research clientele of 300-400 and containing classified and unclassified material.

Gives statistics for collection, physical facilities, number and category of library staff members, and estimated costs. Dated, but contains some still-pertinent information.

60. Hirayama, K. TIME REQUIRED, COST, AND PERSONNEL FOR DOCUMENTATION. American Documentation 13:313-319. July 1962.
Time-cost study of documentation, citing number of personnel required for each step. Charts and graphs are included. Dated but of interest.

61. Jackson, Eugene B. [REVIEW OF] U.S. PRESIDENT'S SCIENCE ADVISORY COMMITTEE. SCIENCE, GOVERNMENT, AND INFORMATION: THE RESPONSIBILITIES OF THE TECHNICAL COMMUNITY AND THE GOVERNMENT IN THE TRANSFER OF INFORMATION [WEINBERG REPORT]. Special Libraries 54:305-306. May 1963.
Concise summary of the landmark Weinberg Report, with comments. (See also Item 145.)

62. Kent, Allen. MINIMUM CRITERIA FOR A COORDINATED INFORMATION SYSTEM. American Documentation 11:84-87. January 1960.
A set of minimum criteria for a coordinated information system prepared at the request of the Documentation Committee of the American Society for Metals. These criteria are followed by factors in the "pilot machine searching operation."

63. Kent, Allen. SPECIALIZED INFORMATION CENTERS. New York, Spartan Books, 1965. 290 p.
Includes a section, "Selection of Personnel to Perform the Various Aspects of Analysis," pages 81-86. A table gives the educational background of staff members of centers, citing the number of analysts doing specific types of work and their subject specialties.

64. Kenyon, C.W. MISSION OF THE LEGAL REFERENCE LIBRARIAN. Law Library Journal 58:123-129. May 1965.
Gives a general picture of the role of the reference librarian in a law library. This article says: "Qualitative standards for measurement and evaluation of performance are not available because of its 'intangible nature'."

65. Kershaw, G. and Davis, J.E. MECHANIZATION IN DEFENSE LIBRARIES. Datamation 14:48-50, 53. January 1968.
A study of military libraries concludes that mechanization has not been as helpful as it should be. Suggests ways to improve utilization.

66. Knight, Douglas M. and Nourse, E. Shepley, eds. LIBRARIES AT LARGE: TRADITION, INNOVATION AND NATIONAL INTEREST; THE RESOURCE BOOK BASED ON THE MATERIALS OF THE NATIONAL ADVISORY COMMISSION ON LIBRARIES. New York, R.R. Bowker, 1969. 664 p.

A source book presenting all facets of library and information service activities in the United States. There is a section on Government library and information services which includes a short history and presents the current picture. Numerous tables and statistics combine to make this volume encyclopedic in nature.

67. Kozumplik, William A. TIME AND MOTION STUDY OF LIBRARY OPERATIONS. Special Libraries 58:585-588. October 1967.
Article on the application of standard work measurement techniques to acquisitions, cataloging, and circulation functions. "A 38 percent saving in manpower without loss of quality effort proves the library environment responds admirably to this management tool."

68. Kruzas, Anthony T. DIRECTORY OF SPECIAL LIBRARIES AND INFORMATION CENTERS. Detroit, Gale Research Company, 1968. 2d ed., 1048 p.
"A guide to special libraries, research libraries, information centers, archives, and data centers maintained by Government agencies, business, industry, newspapers, educational institutions, nonprofit organizations, and societies in the fields of science, technology, medicine, law, art, religion, history, social sciences, and humanistic studies."

69. Lewis, Alfred J. 1969 STATISTICAL SURVEY OF LAW SCHOOL LIBRARIES AND LIBRARIANS. Law Library Journal 63:267-272. May 1970.
Results of a survey conducted by the American Bar Association, Section on Legal Education, in the fall of 1969, to obtain for the first time statistics on law school libraries. 145 law school libraries were surveyed. Numbers of professional and nonprofessional staff are given.

70. LIBRARY EDUCATION AND MANPOWER. American Libraries 1(4):341-345, April 1970.
An ALA policy proposal recommending categories of library manpower and levels of training and education appropriate to the preparation of personnel for these categories which will support the highest standards of library service. Library service as here understood is concerned with knowledge and information in their several forms--their identification, selection, acquisition, preservation, organization, communication and interpretation, and with assistance in their use. A table on page 342 lists categories of both professional and supportive library personnel, by title, basic requirements, and nature of responsibility. Under title, positions requiring library-related as well as those requiring nonlibrary related qualifications are included.

71. LIBRARY TECHNOLOGY: A PANEL. Library Law Journal 61:409-420. November 1968.

Panel on "impact of technology on librarianship" held at the 61st annual meeting of the American Association of Law Libraries, July 1-3, 1968. Applications of mechanization to law libraries is discussed.

72. Licklider, J.C.R. LIBRARIES OF THE FUTURE. Cambridge, Massachusetts Institute of Technology Press, 1965. 219 p.
This book is based on a study sponsored by the Council on Library Resources and conducted by Bolt, Beranek and Newman, Inc. It is a clear and important presentation of information science in the libraries of today, what is required of libraries, how computers are helping meet the requirement, and what we may expect of the libraries of tomorrow.

73. Lilley, Dorothy B. GRADUATE EDUCATION NEEDED BY INFORMATION SPECIALISTS AND THE EXTENT TO WHICH IT IS OFFERED IN ACCREDITED LIBRARY SCHOOLS. Dissertation Abstracts 30:1581A. October 1969. Thesis for D.L.S., Columbia University, 1969.
A survey was conducted to determine patterns of organization in information centers and university libraries, differences in activities and education needed to perform them, and the extent to which selected library schools offer the areas of knowledge which information specialists need. Librarians and information specialists are involved in 71 activities; 33 areas of knowledge are needed to perform them. Conclusions include recommendations to library schools for educating information specialists.

74. Line, Maurice B. INFORMATION SERVICE IN UNIVERSITY LIBRARIES. Journal of Librarianship 1:211-224. October 1969.
Recommendations are offered for the creation of special posts of information officer within university libraries, with functions distinct from those of librarian, in order to meet the increased demands for library service. Suggests reallocation of duties and funds in order to pay for such positions.

75. Martin, Lowell A. PERSONNEL IN LIBRARY SURVEYS. In Tauber, Maurice F. and Stephens, Irlene R. Library Surveys. New York, Columbia University Press, 1967. p. 123-141.
Article on the help that surveys can give in the area of staffing, and how to interpret personnel data derived from the survey.

76. Martin, Robert L. TECHNICAL AND MEDICAL RESEARCH LIBRARIES AND INFORMATION CENTERS OF THE DEPARTMENT OF THE ARMY. Washington, U.S. Department of the Army, 1966. 20 p. (ATLIS Report No. 1) (AD 655 535)
This document provides a listing of technical libraries and information systems of the Department of the Army arranged alphabetically by state. Information given includes name and address of the organization, name of librarian or director, size of staff, and description of collections.

77. Maryland Library Association. Legislative and Planning Committee. MINIMUM PROFESSIONAL PERSONNEL AND STAFFING STANDARDS FOR MARYLAND'S PUBLIC LIBRARY SYSTEMS; A PROPOSAL. Maryland Libraries 34:7-12. Summer 1968.
Also appears in Library Journal 93:3747-3749. October 15, 1968.
Comment [letters]. Appears in Maryland Libraries 35:12-15. Winter 1969.
Proposal of standards for Maryland's public library systems by a subcommittee appointed by the Legislative and Planning Committee of the Maryland Library Association. These standards include: professional personnel standards (i.e., library education requirements, graduate and undergraduate); and staffing requirements including minimum staffing formula.

78. Military Librarians Workshop, 4th, Arlington, Virginia, 1960. SUPPLEMENTAL WORKSHOP PAPERS. Arlington, Virginia, Armed Services Technical Information Agency, 1960. 41 p.
"Standards for Military Libraries," a panel discussion, pages 13-23, is of interest.

79. Military Librarians Workshop, 9th, West Point, New York, 1965. THE LIBRARY IN THE DEFENSE ESTABLISHMENT: MUTUAL OBLIGATIONS TOWARD MISSION ACCOMPLISHMENT; Proceedings, November 3-5, 1965. West Point, New York, U.S. Military Academy, 1966. 104 p.

80. Military Librarians Workshop, 12th, Carlisle Barracks, Pennsylvania, 1968. MANAGING A LIBRARY; Proceedings, September 30-October 2, 1968. Carlisle Barracks, Pennsylvania, Army War College, 1968. 64 p.
Contents: Special libraries--problems and cooperative potentials; Military library management; The large Army technical library; Managing a small Navy research library; Managing a medium size Air Force technical library; Managing a medium sized armed forces academic library. Summaries. Resolutions.

81. Minder, Thomas L. LIBRARY SYSTEMS ANALYST; A JOB DESCRIPTION. College and Research Libraries 27:271-276. July 1966.
This article on the place of a library's systems analyst within the library organization, covers job description, functions, and prerequisites. Details are applicable to both small and large libraries.

82. Murdock, J.W. and Brophy, C.A. COMPARISON OF THE FUNCTIONS OF LIBRARIES AND INFORMATION CENTERS. Library Trends 14:347-352. January 1966.
Comparison of duties and responsibilities of libraries and information centers, Federal and nonfederal, with implications for staffs.

83. Nelson Associates. PUBLIC LIBRARY SYSTEMS IN THE UNITED STATES: A SURVEY OF MULTIJURISDICTIONAL SYSTEMS. Chicago, American Library Assocation, 1969. 384 p.

"An introductory chapter presents the objectives and methodology of this landmark study based on data collected from 58 selected systems. An overview gives a general historical review of system development, resources and services of 58 selected systems..." Personnel and other areas of six selected systems are examined. A summary of findings, conclusions and recommendations is presented.

84. Orlov, V. USSR TECHNICAL LIBRARIES IN THE NATION-WIDE SYSTEM OF SCIENTIFIC TECHNICAL INFORMATION. Libri. 18(3-4):230-236. 1968.

This article outlines organization of the system of scientific and technical information in the USSR. The role of technical libraries as an integral part of this system is described, with emphasis on the USSR National Public Library for Science and Technology.

85. Orne, Jerrold. PLACE OF THE LIBRARY IN THE EVALUATION OF GRADUATE WORK. College and Research Libraries 30:25-31. January 1969.

This article describes the effect of increasing enrollment, changing degree programs, and rising costs on the academic library. A paragraph on consequent new demands on library staffs is included.

86. Painter, Ann F. ROLE OF THE LIBRARY IN RELATION TO OTHER INFORMATION ACTIVITIES; A STATE-OF-THE-ART REVIEW. Washington, Office of the Chief of Engineers, 1968. 92 p. (TISA Project Report No. 23) (AD 682 010)

"The purpose of the state-of-the-art is to establish on the basis of the literature the role the library plays in relation to these other information activities in the Federal Government and perhaps shed some light upon the reasons for the development of separate facilities. Some of the characteristics investigated include definitions, functions, objectives, organization, financial base, services, personnel, and the user. A two-part bibliography (alphabetical and classified) supplements the text."

87. Parker, T.F. MISSING STREAM: OPERATIONS MANAGEMENT IN LIBRARIES. Library Journal 94:42-43. January 1, 1969.
Comment by D.T. Wilder and R.I. Levine [letters]. Library Journal 94:921. March 1, 1969.

The importance of systems analysis in today's libraries. Analytical techniques are available and should be used. Among other benefits such analysis will identify clerical and nonprofessional tasks now being carried by professionals and permit the assignment to nonprofessionals.

88. Penna, Carlos Victor. PLANNING LIBRARY SERVICES. UNESCO Bulletin for Libraries 21:60-92. March 1967.

A comprehensive article on all aspects of library planning for all types of libraries. The author draws primarily from his knowledge of and experience in Latin American libraries. Includes a bibliography of works on standards.

89. Price, Bronson. LIBRARY STATISTICS OF COLLEGES AND UNIVERSITIES: ANALYTIC REPORT, FALL 1968. Washington, U.S. Office of Education, 1970. 82 p.

This is a summary report of the aggregated statistics contained in William's "Library Statistics of Colleges and Universities: Data for Individual Institutions, Fall 1968," (see Item 157) plus additional libraries which did not appear in the Williams report.

90. Randall, Gordon E. MECHANIZATION AND THE SPECIAL LIBRARY. Drexel Library Quarterly 5:222-233. October 1969.

This article provides tables showing percentage-wise the type of mechanization used in college, industrial, public and government libraries. Also includes rank order of functions most frequently mechanized by type of library. Two tables relate to number of professional and nonprofessional staff. Some data is taken from the 1966 SLA-LTP survey of library mechanization. (See Item 114.)

91. Randall, Gordon E. SPECIAL LIBRARY STANDARDS, STATISTICS, AND PERFORMANCE EVALUATION. Special Libraries 56:379-386. July-August 1965.

Criticizes 1964 Special Library Association standards, "Objectives and Standards for Special Libraries," (see Item 113) as too vague and offers modifications in the areas of staff, collection, circulation, physical facilities, and budget. At date of article author represented SLA on the American Library Association Technology Project Advisory Committee.

92. Randall, Gordon E. STANDARDS FOR SPECIAL LIBRARIES. In Bowker Annual of Library and Book Trade Information, New York, R.R. Bowker Co., 1970. p. 74-76.

Quantitative data extracted from SLA's "Profiles of Special Libraries" and tabulated under the headings: clientele, staff, collection, equipment, spaces, and budget. This data shows 67% to 72% of special library budgets being allotted to staff.

93. Redmond, D.A. SMALL TECHNICAL LIBRARIES: A BRIEF GUIDE TO THEIR ORGANIZATION AND OPERATION. UNESCO Bulletin for Libraries 18:49-79. March 1964.

Though dated this is a helpful and concise article on the operation of small technical libraries. Specific guidelines and suggestions are made in the areas of staff, space and equipment, library materials, processing, use of library materials, cost, and growth. Extensive bibliography.

94. Reed, Sarah R. LIBRARY MANPOWER; REALISM, RELEVANCY AND REQUIREMENTS. Journal of Education for Librarianship 7:43-47. Summer 1966.
Discusses requirements for manpower, and gives a chart showing selected library manpower statistics in academic, public, and school libraries weighed against American Library Association personnel standards.

95. Reynolds, Michael M. INDIANA UNIVERSITY REGIONAL CAMPUS LIBRARIES: TOWARD A SYSTEM OF ACADEMIC LIBRARIES. In Proceedings of the 1968 Clinic on Library Applications of Data Processing; edited by Dewey E. Carroll. Urbana, University of Illinois, Graduate School of Library Science, 1969. p. 89-138.
An article concerning the centralization of technical processes begun in 1965 for the six regional Indiana University campus libraries with routines adopted which later fitted into a computer-based system. Relieving the library staffs at the regional campuses of this work added to the professional service available to users of these libraries.

96. Rogers, James F. STAFFING AMERICAN COLLEGES AND UNIVERSITIES: THE DEMAND FOR FACULTY AND OTHER PROFESSIONAL STAFF IN HIGHER EDUCATION, NOVEMBER 1963 THROUGH OCTOBER 1969. Washington, U.S. Office of Education, 1967. 220 p.
Gives number and percent of full-time and part-time professional staff (including librarians) in colleges and universities as of October 1963, and estimates further number needed from November 1963 to October 1969.

97. Rosenberg, Kenyon C. EVALUATION OF AN INDUSTRIAL LIBRARY: A SIMPLE-MINDED TECHNIQUE. Special Libraries 60:635-638. December 1969.
Proposes a method and a formula for evaluating library services in correlation with dollars and cents saved the parent company. Says the author: "If librarians have any value--something about which I am not the least dubious--then librarians had better start proving it."

98. Rosenthal, Joseph A. NONPROFESSIONALS AND CATALOGING: A SURVEY OF FIVE LIBRARIES. Library Resources and Technical Service 13:321-331. Summer 1969.
A survey undertaken by the author at the request of the Cataloging and Classification Section (American Library Association) reveals good results in five university libraries using nonprofessionals in cataloging. One fact stressed is the increasing tendency to use Library of Congress catalog cards with less and less change.

99. Rowland, George E. and others. THE PROCESS OF PROFESSIONAL INFORMATION EXCHANGE AMONG SCIENCE INFORMATION SPECIALISTS; FINAL REPORT. Haddonfield, N.J., Rowland and Company, Inc., 1967. 89 p. (R/C-67-7, Contract NSF-C421) (PB-175 568)

"A study was conducted to define the process of professional information exchange among science information specialists and to identify their requirements. An extensive nationwide field survey was made by interviewing 127 science information specialists who were located in 72 different qualified science information centers located from California to the East Coast. The data clearly indicate that the science information specialist is educationally and functionally different from the librarian; that the process of science information exchange is inadequate; and that government, industry, and academic institutions should all become involved in constructing a better communication system. Specific recommendations are given."--Authors' abstract

100. Rowse, David. THE RETRIEVAL OF TECHNICAL INFORMATION. Electronics and Power 15:96-98. March 1969.

This is a description of the so-called "Perfect" system, EDS-0009, devised by the U.S. Department of Defense for the storing of technological information and capable of rapid retrieval and instant revision.

101. Salverson, Carol A. RELEVANCE OF STATISTICS TO LIBRARY EVALUATION. College and Research Libraries 30:352-361. July 1969.

"There has been increasing concern about standardizing library statistics. Yet conventional statistics are inner-directed and static measures. A library system should be evaluated in terms of function related to use, i.e., its efficiency and effectiveness. Several methods used in evaluation are examined. The concept of the library as a system is developed and an approach to evaluation is outlined. In conclusion this paper considers the relevance of statistics, and indicates briefly what types of data should be collected."

102. Schick, Frank L. THE CENTURY GAP OF LAW LIBRARY STATISTICS. Law Library Journal 67:1-6. February 1968.

This article presents pertinent statistics. Of special interest are the numbers and grades of personnel in law libraries serving the Federal government for FY 1965.

103. Schick, Frank L., ed. SURVEY OF LIBRARY EDUCATION PROGRAMS IN THE UNITED STATES, CANADA, AND MEXICO, 1968-1970. Chicago, American Library Association, 1970. In preparation.

The American Library Association states in its catalog of publications that this book presents statistical data from a survey of library and information science programs, and establishes trends for all three North American countries. Compares findings with those of the previous study, "North American Library Education Directory and Statistics. 1966-1968."

104. Schick, Frank L. and Howard, Paul. SURVEY OF SPECIAL LIBRARIES SERVING THE FEDERAL GOVERNMENT. Washington, U.S. Office of Education, 1968. 108 p. (OE-15067)

This is the third report on the special libraries which serve the U.S. Federal Government, including the National Libraries. The report covers organization, staff, and operating expenses of these libraries, including a variety of statistics.

105. Shachtman, Bella E. OTHER FEDERAL ACTIVITIES. Library Trends 16:112-126. July 1967.
Article on the activities and cooperation of Federal libraries and information agencies other than the Library of Congress. Explains the activities of the Committee on Scientific and Technical Information (COSATI) of the Federal Council for Science and Technology, the National Library of Medicine, the National Science Foundation, and the Federal Library Committee.

106. Shaughnessy, Thomas, ed. MOBILIZING LIBRARY RESOURCES FOR SERVICE. Chicago, American Library Association, 1970. In preparation.
The American Library Association's catalog of publications states that this book deals with the benefits of interlibrary cooperation and the barriers to its accomplishment. An essential volume for all interested in interlibrary cooperation within the framework of governmental agencies.

107. Shera, Jesse H. WHAT IS PAST IS PROLOGUE: BEYOND 1984. ALA Bulletin 61:35-47. January 1967.
Summary of the history of mechanization in libraries with its implication for libraries of the future and the effect on library education, and hence on future library staffs.

108. Sherrod, John. SELECTION AND TRAINING OF INFORMATION CENTER PERSONNEL. In Howerton, P.W., ed. Information Handling, First Principles. Washington, Spartan Books, 1963. p. 183-193.
Defines documentalist, librarian, special librarian, science librarian, technical literature analyst, and information scientist. Discusses the education of personnel for information center work; qualifications needed; and sources of personnel.

109. Shipps, Harrold S., Jr. EVALUATION OF UNITED STATES AIR FORCE BASE LIBRARIES SUPPORTING UNDERGRADUATE AND GRADUATE EDUCATION PROGRAMS IN COLLABORATION WITH CIVILIAN COLLEGES AND UNIVERSITIES. Denver, University of Colorado, 1969. 373 p.
Ph.D. Thesis (AD 691 103)
"The purpose of the study was to determine the adequacy of base library service and collections to support the undergraduate and graduate study programs undertaken on United States Air Force installations by officers and airmen, through civilian institutions, during off-duty hours. Basic to the study was the development of a method of library evaluation that would be applicable to the individual base libraries concerned with supporting specific academic programs, yet at the same time have the broad applicability

necessary to establish it as a rating system for any Air Force base library engaged in supporting such programs. The evaluation system developed consisted of a formula of point scales to be used in rating the following resource and service elements of the base libraries: (1) the book collection, (2) the periodical and newspaper collection, (3) indexes and abstracts, (4) dictionaries, (5) encyclopedias, (6) professional reference service and (7) supplementary resources, including duplicate copies of required reading materials; back numbers of periodicals, indexes and abstracts; microtext materials; and the resources of other libraries."

110. Shores, Louis. LIBRARY TECHNICIAN: A PROFESSIONAL OPPORTUNITY. Special Libraries 59:240-245. April 1968.
The role of the library technician as defined in the Civil Service Commission position classification standards, GS 1411 series (nonprofessional library personnel); and a proposed educational curriculum for this newly emerging category of library workers.

111. Simpson, Gustavus, S. THE EVOLVING U.S. NATIONAL, SCIENTIFIC, AND TECHNICAL INFORMATION SYSTEM. Battelle Technical Review 17:21-28. May-June 1968.
The support of research and development by Federal agencies versus that by private sources is 70 percent against 30 percent. Because of this support an ever-increasing role for the Government in the field of information services is envisioned for the future.

112. Slamecka, Vladimir. GRADUATE PROGRAMS IN INFORMATION SCIENCE IN THE GEORGIA INSTITUTE OF TECHNOLOGY. Special Libraries 59:246-250. April 1968.
The Director of Georgia Tech's School of Information Science describes its current academic program. Conclusions as to the value of this program and the status of the school are noteworthy.

113. Special Libraries Association. OBJECTIVES AND STANDARDS FOR SPECIAL LIBRARIES. New York, The Association, 1964.
Also appears in Special Libraries 55:672-680. December 1964.
Also appears in Bowker Annual of Library and Book Trade Information. New York, R.R. Bowker, 1965. p. 130-138.
Appraisals, in Special Libraries 56:197-201. March 1965.
Criticism, in Special Libraries 56:379-386. July-August 1965. (See Item 91)
These standards for special libraries drawn up by the Professional Standards Committee, SLA, contain specific quantitative measures for library stacks, shelving, and space requirements only. For personnel, services, and collections the standards attempt to give a clear guide to the elements which are present in a successful special library, but give no yardstick for measurement.

114. Special Libraries Association, Documentation Division, and American Library Association, Library Technology Program. THE USE OF DATA PROCESSING EQUIPMENT BY LIBRARIES AND INFORMATION CENTERS; submitted by Creative Research Services, Inc. Chicago, American Library Association, 1966. 160 p.
Summary by E.B. Jackson, entitled: SIGNIFICANT RESULTS OF THE SLA-LTP SURVEY. Special Libraries 58:317-327. May 1967.
This report includes tables showing use of data processing equipment, analyzed by function and type of equipment employed.

115. Stansfield, George J. LIBRARIES OF MILITARY EDUCATIONAL INSTITUTIONS IN THE UNITED STATES. Special Libraries 51:108-111. March 1960.
This article presents a concise picture of all major academic military (naval and air force) libraries in the United States. The statistics are out-of-date, but the general picture is the same.

116. Stebbins, Kathleen B. PERSONNEL ADMINISTRATION IN LIBRARIES; edited by Foster E. Mohrhardt. Metuchen, N.J., Scarecrow Press, 1966. 2d ed. rev., 373 p.
One of the major resources for librarians on library personnel work. The statistics from public libraries given in the section, "Personnel Practices," are of especial interest.

117. Stevenson, Chris G. CHECKLIST FOR REVIEW AND EVALUATION OF TECHNICAL LIBRARIES. Special Libraries 58:106-110. February 1967.
Detailed checklist including questions on organization, physical facilities, personnel, administration, reference resources, and others.

118. Stevenson, Chris G. A LIBRARIAN LOOKS AT THE STATE TECHNICAL SERVICES ACT. Special Libraries 59:183-185. March 1968.
An examination of the State Technical Services Act of 1965 and the elements encouraging libraries toward more extensive use of information resources to benefit local industries.

119. Stevenson, Chris G. WORK MEASUREMENT IN TECHNICAL LIBRARY ACTIVITIES. Special Libraries 47:409-411. November 1956.
This is an article theorizing on the development of criteria of work measurement in libraries. It is cited frequently by authors of articles or books on work measurement.

120. Stokes, Paul M. A TOTAL SYSTEMS APPROACH TO MANAGEMENT CONTROL. New York, American Management Association, 1968. 160 p.
Explains in a clear and explicit manner the analysis of standards development. Tells how, where, and when. This is an often cited book on standards development.

121. Surace, Cecily J. THE HUMAN SIDE OF LIBRARIES. Santa Monica, Calif., Rand Corporation, 1969. 16 p.

Specifically concerned with personnel administration in libraries. Includes application of work measurement in special areas.

122. Tauber, Maurice F. and Stephens, Irlene R. LIBRARY SURVEYS. New York, Columbia University Press, 1967. 286 p. (Columbian University Studies in Library Science No. 16)
An in-depth treatment of library surveys of all kinds with extensive bibliographies.

123. Tauber, Maurice F. and Stephens, Irlene R. TECHNICAL SERVICES IN LIBRARIES, 1956-1966. Library Resources and Technical Services 11:321-329. Summer 1967.
A summary of significant developments in technical services in the decade from 1956-1966. A paragraph on personnel and training is included as well as one describing attempts at various library standards.

124. Taylor, Robert S. INTERFACES BETWEEN LIBRARIANSHIP AND INFORMATION SCIENCE AND ENGINEERING. Special Libraries 58:45-48. January 1967.
This article describes interfaces in five areas: systems analysis; environmental context; information channels; the naming, labelling, or classification process; and the man-system interface. "The major effect that information science will have on librarianship will be strategic rather than substantive."

125. Taylor, Robert. S. TOWARD THE DESIGN OF A COLLEGE LIBRARY FOR THE SEVENTIES. Wilson Library Bulletin 43:44-51. September 1968.
This article concerns the principles and key concepts involved in planning the library for a new four-year liberal arts college located at Hampshire College, Amherst, Massachusetts. The mission, functions, and collection of the library are described, and an estimate is made of the number of full-time and part-time staff which will be required.

126. Tuttle, Helen W. TSCOR, THE TECHNICAL SERVICES COST RATIO. Southeastern Librarian 19:15-25. Spring 1969.
TSCOR grew out of an effort to develop standards for size of technical services staffs. It is a "cost figure for staff salaries needed to convert a given number of funds into library collections." Thus, a librarian can determine how much staff will be needed, in an academic library for example, if a new program is to be added to the curriculum. A form for computing TSCOR for academic libraries is included. (See also Item 152).

127. U.S. Civil Service Commission. POSITION CLASSIFICATION STANDARDS AND GUIDE FOR THE CLASSIFICATION OF POSITIONS PROVIDING PROFESSIONAL-LEVEL LIBRARY AND INFORMATION SERVICES. Washington, U.S. Government Printing Office, 1966. various paging. (Transmittal sheets No. 60, February 1966, No. 62, June 1966, and No. 83, December 1969)

The official position classification standards for all Federal civilian positions. Pertinent to staffing criteria are the series GS 1410 (Librarian), GS-1412 (Technical Information Services), and GS-1411 (Library Technician).

128. U.S. Civil Service Commission. QUALIFICATION STANDARDS, CIVIL SERVICE HANDBOOK X-118. Washington, U.S. Government Printing Office, 1968. various paging. (Transmittal sheet No. 121, December 1968).
The official qualification standards for all Government civilian personnel. Pertinent to staffing criteria are the series GS-1410 (Librarian), GS-1412 (Technical Information Services), and GS-1411 (Library Technician).

129. U.S. Congress. Senate. Committee on Government Operations. DOCUMENTATION, INDEXING AND RETRIEVAL OF SCIENTIFIC INFORMATION. Washington, U.S. Government Printing Office, 1960. 283 p. (86th Congress, 2d Session. Senate Document No. 113)
Important document from an historical point of view, giving background and legislative history of information activities. Covers the entire Government picture as of June 1960 citing the programs of each department or agency and many non-Government programs. Considers problems of information retrieval in libraries, flow of information, research on scientific information problems, approaches to solutions, and many other aspects of documentation.

130. U.S. Department of Defense. Office of the Assistant Secretary of Defense (Installations and Logistics). CONSTRUCTION CRITERIA MANUAL. Washington, U.S. Government Printing Office, March 1, 1968. various paging. (DOD 4270.1-M)
Gives space criteria for main and branch libraries, pages 3-26, 3-27. Table contains gross square area allowed per military strength of the community.

131. U.S. Department of the Army. ARMY CIVILIAN CAREER PROGRAM FOR LIBRARIANS. Washington, U.S. Government Printing Office, 1966. 16 p. (Civilian Personnel Regulation 950-21)
Army regulation on the career program for Army librarians. This regulation covers career levels and patterns, training and development, registration and referral, and master training plan for librarians. Includes a bibliography and a list of accredited library schools (as of 1966).

132. U.S. Department of the Army. ARMY FIELD LAW LIBRARY SERVICE. Washington, U.S. Government Printing Office, October 30, 1962. 7 p. (AR 1-115)
Army regulation governing establishment, control, and administration of Army field law libraries.

133. U.S. Department of the Army. ARMY LIBRARY PROGRAM. Washington, U.S. Government Printing Office, April 3, 1968. 8 p. (AR 28-85)
Army regulation which establishes policies, procedures, and standards for Army Special Services libraries. Includes staffing yardstick from Department of the Army Pamphlet 20-551. (See Item 137.)

134. U.S. Department of the Army. CENTERS FOR ANALYSIS OF SCIENTIFIC AND TECHNICAL INFORMATION. Washington, U.S. Government Printing Office, January 14, 1965. 7 p. (AR 70-22, and change 1, May 4, 1967)
Army regulation prescribing policy and procedures for all information analysis centers within the framework of the Department of Defense and the Department of the Army Scientific and Technical Information Program.

135. U.S. Department of the Army. LIBRARY OPERATIONAL GUIDE. ARMY LIBRARY PROGRAM. Washington, U.S. Government Printing Office, September 15, 1961. 201 p. (DA Pam 28-30)
Operating handbook for Army Special Services libraries. This handbook covers all aspects of administration of Army post or general libraries, and includes a bibliography and a list of regulations and directives pertaining to Army libraries and librarians.

136. U.S. Department of the Army. SCIENTIFIC AND TECHNICAL INFORMATION PROGRAM. Washington, U.S. Government Printing Office, August 18, 1965. 4 p. (AR 70-45)
Army regulation establishing policy and assigning responsibilities governing the Department of the Army Scientific and Technical Information Program.

137. U.S. Department of the Army. STAFFING GUIDE FOR U.S. ARMY GARRISONS. Washington, U.S. Government Printing Office, October 27, 1959. various paging. (DA Pam 20-551, change 4, June 3, 1963, and change 12, December 26, 1968)
Contains the official yardstick for the staffing of Special Services libraries (main library, branch, bookmobile, and installation hospital patients' library), pages 68.7-68.9.

138. U.S. Department of the Army. STAFFING GUIDE FOR U.S. ARMY SERVICE SCHOOLS. Washington, U.S. Government Printing Office, December 20, 1967. various paging. (DA Pam 616-558, and change 1, March 23, 1970)
Contains the official yardstick for the staffing of Army Service Schools, pages 2-25, 2-26.

139. U.S. Department of the Army. Office of the Chief of Engineers. GUIDE TO LAWS AND REGULATIONS ON FEDERAL LIBRARIES. New York, R.R. Bowker, 1968. 862 p. (Army Technical Library Improvement Studies) [ATLIS Report No. 4]
This extensive volume contains the laws, directives, and mission statements which have been issued by Federal agencies concerning

their libraries. The authority for libraries and library activities has been gleaned from the literature and from the "U.S. Statutes at Large."

140. U.S. Department of the Army. Office, Chief of Research and Development. U.S. ARMY DIRECTORY OF TECHNICAL INFORMATION HOLDINGS AND SERVICES. Washington, U.S. Government Printing Office, 1969. 63 p. (AD 688 262)

"This directory identifies 111 Army sources of technical information that include 2200 specialized subject areas. The sources are indexed by subject matter and name of holding, so that a searcher can find a description of all available indexed Army information sources, with details on scope and size of collections, services available, and means of obtaining help. It is for use by the research and development community having authorized access to these information sources, and for intercommunication between the sources themselves." Cites collections and services but nothing on staffing.

141. U.S. Federal Council for Science and Technology. Committee on Scientific and Technical Information. Panel on Information Analysis Centers. DIRECTORY OF FEDERALLY SUPPORTED INFORMATION ANALYSIS CENTERS. Washington, U.S. Government Printing Office, 1970. 71 p. (COSATI-70-1, PB 189 300)

Extremely pertinent directory for purposes of this study, as it includes for each of the 119 centers listed a very detailed description of the number and type of staff. Also includes date of origin, mission, and services performed of each center.

142. U.S. Library of Congress. LIBRARY AND REFERENCE FACILITIES IN THE AREA OF THE DISTRICT OF COLUMBIA. Washington, U.S. Government Printing Office, 1966. 7th ed. n.p.

Lists and describes libraries in the District of Columbia offering service to the public, and those with service restricted to a given clientele which possess unique or specialized collections.

143. U.S. Office of Education. STATISTICS OF PUBLIC LIBRARIES SERVING COMMUNITIES WITH AT LEAST 25,000 INHABITANTS, 1965. Washington, U.S. Government Printing Office, 1968. 65 p.

Includes various statistics concerning staffing and personnel.

144. U.S. Office of Education. Library Services Branch. NATIONAL INVENTORY OF LIBRARY NEEDS. Chicago, American Library Association, 1965. 72 p.

Special report, presented at the 1965 American Library Association annual conference by the president of the association, Edwin Castagna, of a survey made by the Office of Education. The report cites the gap between library resources on a national basis and ALA's minimum standards for library services in the areas of staff, operating expenditures, and book collections.

145. U.S. President's Science Advisory Committee. SCIENCE, GOVERNMENT, AND INFORMATION: THE RESPONSIBILITIES OF THE TECHNICAL COMMUNITY AND THE GOVERNMENT IN THE TRANSFER OF INFORMATION [WEINBERG REPORT]. Washington, The White House, 1963. 52 p.
Review in Special Libraries 54:305-306. May 1963. (See Item 61)
Discussion in Special Libraries 54:325-332. July-August 1963.
Report of a Panel on Science Information to the President's Science Advisory Committee on the problems of scientific and technical communication within and outside of the Government, and with recommendations of steps to be taken both by technical communities and by the Government to streamline and strengthen communication. This very important report marked a turning point in the treatment of information resources.

146. Vainstein, Rose and Magg, Marian. STATE STANDARDS FOR PUBLIC LIBRARIES. Washington, U.S. Government Printing Office, 1960. 85 p. (Office of Education Bulletin 1960 No. 22)
State-by-state description of current library standards including numbers, qualifications and ratio of staff to persons served. Bibliography of state and general references.

147. Vann, James O. DEFENSE DOCUMENTATION CENTER (DDC) FOR SCIENTIFIC AND TECHNICAL INFORMATION. Journal of Chemical Documentation 3:220-222. November 1963.
Presents a clear and concise picture of the organization and functions of this Department of Defense office which is the center for all Army, Navy, and Air Force documentation activities. It explains the systems approach in the handling of scientific and technical documents in the Department of Defense.

148. Vincent, Dale L. U.S. ARMY RESEARCH AND DEVELOPMENT INFORMATION PROGRAM, FY 1968-FY 1972. Washington, Office of the Chief of Research and Development (Army), 1968. 65 p. (CFSTI: AD 672 844)
Specific projects described are: Army technical library improvement studies; Symposia and conferences; Chemical information and data system; Engineering data storage and retrieval; Information and date exchange experimental activities; and Technical information functions and activities, which includes the technical information and analysis centers task and the Army research and development information system.

149. Wasserman, Paul. ELEMENTS IN A MANPOWER BLUEPRINT--LIBRARY PERSONNEL FOR THE 1970's. ALA Bulletin 63:581-599. May 1969.
This article discusses key concepts in future librarianship: professionalism, substantive base of librarianship, correlation of individual attributes with work setting, and advanced forms of professional performance. The author, director of the Manpower Research program at the University of Maryland refers to work being done in that program in these areas. (See also Item 151)

150. Wasserman, Paul. MEASURING PERFORMANCE IN A SPECIAL LIBRARY. Special Libraries 49:377-382. October 1958.
The author provides some practical suggestions for utilizing a direct approach to the problem of measuring library service.

151. Wasserman, Paul and Bundy, Mary Lee. A PROGRAM OF RESEARCH INTO THE IDENTIFICATION OF MANPOWER REQUIREMENTS, THE EDUCATIONAL PREPARATION AND UTILIZATION OF MANPOWER IN THE LIBRARY AND INFORMATION PROFESSIONS: FINAL REPORT, PHASE I. College Park, University of Maryland, School of Library and Information Services, 1969. 50 p. (EDRS: ED-023 938)
Report of the first phase of a three-year research project, sponsored by the Office of Education, the National Science Foundation, and the National Library of Medicine, to provide information on the manpower requirements of the library and information professions in order to assist in the recruitment, training, and utilization of personnel in these growing fields. History, current status of major investigations, and dissemination activities are among the areas covered in this first report.

152. Welch, Helen M. TECHNICAL SERVICE COSTS, STATISTICS AND STANDARDS. Library Resources and Technical Services 11:436-442. Fall 1967.
With two-thirds of the library's budget used for staff, it becomes necessary to develop measurements for effective administration. For the technical services area the author then develops the concept of TSCOR, Technical Services Cost Ratio. This is a figure which represents the amount it costs in staff salaries to spend one dollar for library materials. (See also Item 126)

153. Wessel, C.J. and Cohrssen, B.A. CRITERIA FOR EVALUATING THE EFFECTIVENESS OF LIBRARY OPERATIONS AND SERVICES. PHASE I: LITERATURE SEARCH AND STATE OF THE ART. FINAL REPORT. Washington, John I. Thompson and Company, 1967. 399 p. (ATLIS Report No. 10) (AD-649 468)
"The first report...summarizes the findings of a search in the library and management sciences literature, and identifies the spectrum of management techniques to be considered for the evaluation of library effectiveness and efficiency." A bibliography of 472 references is a major part of the report.

154. Wessel, C.J., Moore, K.L. and Cohrssen, B.A. CRITERIA FOR EVALUATING THE EFFECTIVENESS OF LIBRARY OPERATIONS AND SERVICES. PHASE II: DATA GATHERING AND EVALUATION. Washington, John I. Thompson and Company, 1968. 109 p. (ATLIS Report No. 19)
"This report summarizes: (1) data and information collected to facilitate the development of criteria for the evaluation of the efficiency and effectiveness of Army Technical Libraries; (2) the findings on the mission and objectives of Army Technical Libraries; (3) the areas in which adequate standards for performance are feasible, and presents the tentative (candidate) cri-

teria and proposed management techniques useful in implementing them." The criteria apply to four general aspects of library performance: (1) philosophical, (2) management, (3) services and products, and (4) operations. The last category includes "criteria which are potentially useful as a basis for developing adequate standards for performance evaluation of the staff's professional actions."

155. Wessel, C.J. and Moore, K.L. CRITERIA FOR EVALUATING THE EFFECTIVENESS OF LIBRARY OPERATIONS AND SERVICES. PHASE III: RECOMMENDED CRITERIA AND METHODS FOR THEIR UTILIZATION. Washington, John I. Thompson and Company, 1969. (ATLIS Report No. 21)
"The final product is a list of recommended criteria and associated methods of implementing them." It includes important service measurement criteria but no staffing yardsticks. The final report: "(1) Examines the tentative criteria (existing and candidate); (2) assesses the reliability of the management tools; (3) presents a detailed description of the recommended methods of implementation of the criteria; and (4) discusses the applicability of the criteria and methods as bases for establishing adequate standards for performance evaluation of ATL's" (Army Technical Libraries).

156. Wessel, C.J. CRITERIA FOR EVALUATING TECHNICAL LIBRARY EFFECTIVENESS; WITH DISCUSSION. Aslib Proceedings 20:455-481. November 1968.
A summary and interpretation by the author of the three-phase study of this title. (See Items 153, 154 and 155)

157. Williams, Joel, ed. LIBRARY STATISTICS OF COLLEGES AND UNIVERSITIES: DATA FOR INDIVIDUAL INSTITUTIONS, FALL 1968. Washington, U.S. Government Printing Office, 1969. 172 p.
Prepared for the U.S. Office of Education this volume includes tables by state and by institution giving library staff and hours of assistance in college and university libraries; and number and average salary of full-time staff by type of position and term of employment. Also included are budgetary data, operating expenditures, and library resources data. This report, by the chief of the Library Surveys Branch, covers 1841 college and university libraries and seven joint libraries.

158. Williams, Joel, ed. LIBRARY STATISTICS: A HANDBOOK OF CONCEPTS, DEFINITIONS, AND TERMINOLOGY. Chicago, American Library Association, 1966. 176 p.
Prepared by the Staff of the Statistics Coordinating Project, ALA, this handbook describes measurable library activities and proposes methods of measurement. It does not set standards of library service or present any statistics for libraries. The sections on staffing of various libraries include procedures for arriving at the proper number of staff for each type of library.

159. Woodruff, Elaine L. WORK MEASUREMENT APPLIED TO LIBRARIES. Special Libraries 48:139-144. April 1957.

An article by the chief librarian of the U.S. Civil Service Commission on the value to a library and method of setting up a work measurement program.

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